

I CLAIM:

1. A method of making an extracorporeal binding device for removing antigens and haptens from the body of a mammal, the method comprising, in a desired order, a step of confining in the device a binding compound, the binding compound having affinity for a binding partner, a step of preparing an affinity binder comprising a first portion comprising the binding partner and a second portion adapted to bind selectively with a species, and thereafter a step of introducing said affinity binder into the device so as to cause the binding partner to bind to the binding compound.
2. The method of claim 1 including connecting the device to a fluid source in a mammal.
3. The method of claim 1 wherein the binding device includes a semipermeable membrane for confining the binding compound.
4. The method of claim 1 wherein the binding compound is bound to a carrier.
5. The method of claim 4 wherein the carrier is selected from the group consisting of a wall of the device, a fixed matrix in the device, and a fill of beads or other granules.
6. The method of claim 1 wherein the second portion of the affinity binder is adapted to bind selectively with a pathogenic species.
7. The method of claim 1 wherein the affinity binders comprise antibodies.
8. The method of claim 7 wherein the first portions of the affinity binders comprise Fc portions of the antibodies.

9. The method of claim 1 wherein the device is an extracorporeal treatment device, the device including means for removing blood from a mammal, passing at least a part of the blood through the device, and returning at least a part of the blood to the mammal.

10. The method of claim 1 wherein the binding compound comprises Protein A or Protein G.

11. The method of claim 2, including a step of administering to the mammal a targeting species bound to a targeted species, the affinity binder being adapted to bind selectively with a species comprising a targeting species bound to a targeted species.

12. The method of claim 11, including a step of extracorporeal adsorption of a species comprising a targeted species.

13. A device having contained therein a binding compound bound to a carrier, the binding compound having affinity for a binding partner, and at least one affinity binder comprising a first portion comprising the binding partner bound to the binding compound and a second portion adapted to bind selectively with at least one species selected from a species comprising a targeting species bound to a targeted species and a pathogenic species..

14. The device of claim 13 wherein the device is an extracorporeal device including means for connecting the device to a fluid source in a mammal.

15. The device of claim 13, wherein the device comprises regeneration means for regenerating the second portion of at least one affinity binder.

16. The device of claim 15, wherein the regeneration means comprise a solution.

17. The device of claim 16, wherein the solution is an acidic buffer.

18. The device of claim 13 wherein at least one of the affinity binders comprises a second portion having affinity to a targeted species bound to a targeting species.

19. The device of claim 18 wherein the targeted species comprises a radioactive molecule, a radioactive atom, or a radioactive ion.

20. A method of removing a species from a mammal comprising introducing into the mammal an affinity binder which selectively binds the species, the affinity binder including a binding partner portion having affinity for a non-antibody binding compound, and thereafter removing the affinity binder by capturing the affinity binder in a device having contained therein the binding compound.

21. The method of claim 20 wherein the non-antibody binding compound is selected from the group consisting of Protein A and Protein G.

22. A species-removing device for removing an antigen or hapten from a mammal, the device having contained therein a binding compound attached to a matrix and an affinity binder bound by affinity binding to the binding compound, the affinity binder having affinity for said antigen or hapten.

23. The method of claim 22 wherein the species is selected from the group consisting of LDL, oxidized-LDL, and rheumatoid factor.

24. A method of making a binding device comprising a first step of confining in the device a binding compound, the binding compound having affinity for a binding partner, a second step of preparing an affinity binder comprising a first portion comprising the binding partner and a second portion adapted to bind selectively with a species, thereafter a step of

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introducing said affinity binder into the device so as to cause the binding partner to bind to the binding compound, the device further comprising an on-line regeneration system.